



## CLAIMS

What I claim as my invention is

- 1 Vipul's forward force balloon with firm grip cocktail stent having spring/spring like structure in its shaft (for transmitting force and maintaining the alignment)  
Balloon will have heatexpansile material and longer nose cone  
Zig zag pattern stent with a cocktail of drug coating
- 2 Forward force balloon with firm grip cocktail stent as claimed in claim 1 wherein the balloon catheter shaft will have spring/spring like structure(metallic or non metallic).
- 3 Forward force balloon with firm grip cocktail stent as claimed in claim 1 wherein spring has circular spirals/strands
- 4 Forward force balloon with firm grip cocktail stent as claimed in claim 1 wherein spring has longitudinal strands/spirals
- 5 Forward force balloon with firm grip cocktail stent as claimed in claim 1 wherein spring has oblique strands/spirals
- 6 Forward force balloon with firm grip cocktail stent as claimed in claim 1 wherein spring/spring like structure will be in portion with or without the PTCA guide wire
- 7 Forward force balloon with firm grip cocktail stent as claimed in claim 1 wherein the segment is straight and PTCA guide wire will not come out of the gaps of spring like structure
- 8 Forward force balloon with firm grip cocktail stent as claimed in claim 1 will have spring like structure, will have various lengths and various placements in the shaft
- 9 Forward force balloon with firm grip cocktail stent as claimed will have stent structure in zig-zag pattern
- 10 Forward force balloon with firm grip cocktail stent as claimed in claim 9 wherein stent struts will have flat outer surface

- 11 Forward force balloon with firm grip cocktail stent as claimed in claim 9 wherein zig zag pattern segment length will be short 1-4mm
- 12 Forward force balloon with firm grip cocktail stent as claimed will have a cocktail of heparin(unfractionated/fractionated), IIb/IIIa receptor blocker and a cytostasis agents
- 13 Forward force balloon with firm grip cocktail stent as claimed in claim 12 will have differential release pattern of different drugs
- 14 Forward force balloon with firm grip cocktail stent as claimed in claim 12 will have more drugs at the edges of the stent and especially the proximal end
- 15 Forward force balloon with firm grip cocktail stent will have a balloon with heatexpansile material on outer surface in some parts or whole and longer flexible nose cone(02-20mm)
- 16 Forward force balloon with firm grip cocktail stent as claimed in claim 15 wherein the heatexpansile material will not affect the lumen of balloon
- 17 Forward force balloon with firm grip cocktail stent as claimed in claim 15 wherein the heatexpansile material will not bind with the stent
- 18 Forward force balloon with firm grip cocktail stent as claimed in claim 15 wherein the heatexpansile material will not come off the balloon.
- 19 Vipul's forward force balloon with firm grip cocktail stent substantially as herein described and illustrated in the accompanying drawings.

Dated this 29<sup>th</sup> day of July, 2003